AGRICULTURAL.

A Private Dairy That Pays.

The simple and somewhat old-fashioned system practiced in a dairy—of Jersey and grade cows—whose butter sells readily and steadily to the same families "at prices far above quotations," each package warranted and none ever returned, and which during nearly twenty years has only in a few instances failed to keep sweet and good till eaten the following spring, is described as follows:

"We have, first of all, a dairy house 12x18 feet, 10 feet high and well lighted. There are four pans 5 feet long 20 inches wide and 6 inches deep. These are in galvanized iron vats that hold about four pails of water. We have water from a spring running into the dairy house and through each or all of these vats as we may desire. Each pan holds one milking and can stand at least thirty-six hours before being skimmed, but is always skimmed as soon as there is the least acidity to the milk. The milk is brought in and strained through both wire and cloth strainer as soon as possible after drawn from the cow. We aim to keep the temperature of the room as near the churning point as possible, so as to avoid any extreme changes in temperature of the cream until it is churned. This can be done by keeping a fire in the cooler part of the season, and in the extreme warm weather by putting a cake of ice in the room and let it dissolve, or by sprinkling the floor with cold well water. When the cream is taken off it generally stands in a covered pail twenty-four hours before churning. When any cream is added to that already in the pail it is thoroughly stirred in order to have all alike in ripeness.

"If at the time of churning the cream is too cold it is brought to the right temperature by putting in warm milk to bring the temperature down. We simply set the cream pail in cellar and never use the ice in the cream or in the water to wash the butter. We always churn in the morning, using a dash churn with a sheep for power, and can churn at an average turn of about fifteen minutes for a season, all the early and later part of the season using only five to ten minutes, with about twenty during late July and August. We wash the butter thoroughly in the churn after the buttermilk is drained off, take it on a lever butter worker, putting one and one-fourth ounces of salt to the pound. We slightly work in the salt, and after covering it closely from the air, leave it a few hours and give it a little more working, pack it in white oak kegs that hold sixty to seventy-five pounds each, the keg having been soaked several days in a brine. In packing we rub the inside of the package over with a little salt, put in a layer about three inches thick, then sprinkle a little salt on top of that layer and put in another, and so on to the filling. Then we put a cloth over the butter sufficiently large to lay over the sides somewhat, filling the keg even to the top with salt. This we moisten with water, and then cover with a flat stone or plank and set away for fall shipping."

HOW DO YOU SET YOUR MILK?

If you are a butter dairyman you have to set the milk for cream raising, and it depends a great deal on how you set it as to what it costs for labor. The old-fashioned way of setting milk in shallow pans or crocks has about passed out of use and the modern way of deep setting in cold water has become almost universal. Some still stick to the shallow pans, from habit we presume, but unless the dairy be a very small one this takes too much labor and time. The deep can method is both the cheaper and better way, and it need cost but little more to supply one's self with deep cans than with shallow pans. It is often the case that there is a spring near the dairy the water of which can be led into a cemented tank in the floor of the dairy, and the deep cans placed in this tank will be all that is needed, or a wooden tank can be used for the same purpose; but the most complete outfit for the deep setting of milk is the portable creamery. With a good portable creamery the time and labor spent in handling the milk and cream is reduced to a minimum and the dairyman can have the temperature under complete control, thereby insuring a uniform product in the butter. Many thousands of these portable creameries are now in use and they have passed the experimental stage long ago and can now be relied upon to produce certain results. The writer can cheerfully commend them after having used one for years and found it a paying investment.

SELECTING SEED CORN.

The yield of corn can be greatly improved by careful selection of seed. It should be done before the corn is harvested, going through the field and tying a red string to stalks that promise to have two or more well formed ears. When the corn is ripe enough to cut save such stalks by themselves and when husked take the best of the two ears. In this way varieties will be formed whose tendancy will be to bear two good ears on a stalk. This should be planted far enough away from other corn so as not to be fertilized by it. Even then some stalks will be found that will have only one or even no ear. These should be cut out before they have fertilized the silk on bearing stalks. In growing seed corn the suckers should be cut out. They rarely bear ears good for anything, while they furnish more than their proportion of pollen for fertilizing bearing ears of grain. For seed purposes it does not matter if the ears are not filled in all parts if it comes from destruction of non-bearing stalks. The scattered grains will grow full and round, instead of being compressed as they are in an ear that has been fertilized with successive growths of pollen on its own stalks, as well as on those earlier and later than itself.

SOWING WHEAT TOO EARLY.

It is not the size of a wheat plant, but its vigor and healthy growth, that insures its vitality through the winter. On rich soil it is often better to defer sowing until late in September. There is less of leaf to draw on the root during winter, or to be transplanted if the root should chance to be lifted up by frost. As for the idea that a large growth of leaf keeps the ground from deep freezing, it is absurd, for every winter frost penetrates always as deep as the furrow and often much deeper. The small wheat plant has not struck its roots deeply. When the surface soil expands it lifts these roots with it. Early sown wheat, especially when sown in a dry time, has roots that strike down deeply. These are snapped whenever a surface thaw occurs, while the roots are held below and the surface freezes again. The top is then greatly disproportioned to the root. It is a good plan when wheat is getting a large fall growth to turn in sheep or young calves to crop the leaves. They lessen liability to injury by decreasing the top in case the root is thrown out. Besides this the tramping of the soil is beneficial. It compacts it around the roots and thus compacted the soil is less absorptive of water, from which comes the chief danger from winter freezing and thawing.—[American Cultivator.

Remedy for Borers.

A correspondent gives his experience as follows: My remedy for borers has worked so satisfactorily with me that I will give it to others who may be similarly afflicted. Last year, 1890, during the latter part of July, I first noted that the borers had attacked my young fruit trees, and on close examination found that they had made fearful ravages; indeed I was almost discouraged, but went to work with the knife cutting them out, and in many instances completely girdling the trees in my efforts to cut them out, and badly injuring others. I was advised to wrap up the trunks with old sacks or bags; but having none convenient I used paper, i. e., pages of catalogues, and in many instances common newspaper. In the autumn I uncovered the trees and found them in good order, but was at a loss to which to attribute my success—the wrapping of paper, the cutting them out, or wash of whale oil soap that I gave them. This season, during April, I washed all my trees with whale oil soap and wrapped nearly all with paper, leaving a few in nursery bed unwrapped, and in a few instances the paper was torn on those in the orchard. On examination last week I found every one where the paper was intact free from borers; in fact not finding a single one; while in those not covered and where paper had not been removed I found from one to twenty, all sizes. This to me is conclusive proof that I am on the right track. The operation is very simple and quickly done. Take a stiff paper (glazed hardware is the best) and cut it into strips four inches wide, then commence at top of trunk and wrap spirally to the foot, throwing up earth around the paper to keep it in place, or if thought necessary it can be loosely tied. A boy can wrap 200 trees in a day of ten hours, or even more. The trunks of young trees certainly need some protection from the sun, and I think this gives it to them.

Our Butter Markets.

I think it is good for people to know, not only what they are doing themselves, but also what others are doing, and especially in these days of easy communication and extended markets, people should have a knowledge of what is going on around them. If I wanted to put it concisely, I would say, especially to those in the export trade, find your market, suit your market, keep your market. A market may be near, and the higher-priced classes of butter, unsalted, etc., may find a market close at hand. On the other hand, however, for the majority of the people, and at all events for some years, it seems to me that the distant markets will be those to which we must look. It is remarkable what can be done by a little careful attention to details. Denmark, a comparatively small country, by no means a rich country, possessing over the rest of Europe no advantages of climate and soil, by great attention to details, scrupulous care and a considerable amount of science, has placed herself in a relatively high position in the European market and, I am sorry to say, to the displacement of many neighbors who should hold their own better than they do. As regards suiting your market, consider that you have to look at not only your own mode of manufacture, but that you have also to suit those to whom you have to sell. Now, with great respect, I cannot help repeating what I have heard elsewhere, and I have seen evidences of it here in this country, that perhaps not enough care is taken as regards a good deal of the butter which is exported. Speaking generally, a bad article costs as much to carry as a good one; and in these days, when you have to meet competition in distant markets, especially, by a better quality than can be found upon the spot, too much stress cannot be laid upon the necessity for improving the quality of our products. Cleanliness and care in packing have a good deal to do with that. The French have gained a good reputation by the care in which in the dairies of Normandy and the northern provinces of France they suit the market to which they are sending. There is a great difference in making up packages in an attractive form, and I suppose even to the wholesale purchaser there is nothing like having something to please the eye in thus making your goods attractive But I am sorry to say that in many cases those who are sending to market do not pay enough attention to this, the result being, for instance, in the case of a mixed sample or bad packing, especially in butter, that the consumer eats bad butter and the producer eats up his own profits.

Rye for Turning Under.

Rye may be sown quite early in autumn or early in September for plowing under in spring, using plenty of seed to produce a heavy crop. Its value as a manure cannot be well compared with barn manure, practical results with which will be quite unlike in different localities and with unlike soils. More time is required for the rye to act and to decay and become disintegrated and diffused through the soil, while manure properly applied will begin to operate at once. Under common management, the manure would produce the most immediate and visible results. The right time to plow rye under is just before the heads appear or just as they are making their earliest appearance. Later, the straw hardens and does not so well mix with and become a part of the soil.

Broody Hens.

This is the time when hens that have laid well early in the season indulge themselves in a rest. Do not let them become broody; feed liberally with whole wheat but no corn. Once or twice a week give them a little oil meal. It is as effective in producing new feathers on moulting hens as it is in making a new coat of hair for horse in winter. As soon as the feathers become glossy stop feeding the meal, as it is too fattening. Its advantage is that it gets the hens in condition for laying before cold weather begins.

CHINA'S NAVY.

Its Growth During the Last Ten Years and Its Present Efficiency

It has been surmised that the somewhat cool and quiet way in which China has lately received the reproaches directed against her by the Western powers, on the score of the Yang-tse-Kiang riots, may be due partly to the confidence which a greatly improved military and naval establishment inspires. In her fleet, especially, the Middle Kingdom has made remarkable progress within the last ten years. It seems but a short time since she was relying on junks with ridiculous armaments, but the recent visit of Admiral Ting's squadron of half a dozen modern war ships to Yokohama created a profound impression there by its efficiency.

Among the first efforts of China to procure a modern navy were her purchase in England of a fleet of gun boats of about 1,350 tons displacement each, and her construction of others at Foochow. Then she contracted with the Vulcan Shipbuilding Company at Stettin for two steel cruisers having a speed of about fifteen knots and carrying two 8-inch and eight 4½-inch Armstrong guns. But more important were the vessels built for her by the Stettin Works, called the Ting Yuen and Chen Yuen. These were armorclads of 7,400 tons displacement, carrying 14½ inches of compound armor at the water line. They are said to have a speed of fifteen knots. They have double bottoms and steel protective decks, and their powerful batteries include four 12-inch Krupp guns, protected by an armored breast work and two smaller Krupps. They are also furnished with eleven Hotchkiss cannon and tubes for Whitehead torpedoes.

The Tsi-Yuen, also built at Stettin, is a twinscrew steel cruiser of 3,200 tons displacement, having a speed of fifteen knots. She has two 8¼-inch and three 6-inch Krupps in her main battery, with a secondary battery of Hotchkiss revolving cannon and Whitehead torpedoes.

Two English protected cruisers, built at Elswick, the Chih-Yuan and the Ching-Yuan, have a displacement of 2,300 tons and attained an average speed, in their trial trips, with all weights, batteries, and crew aboard, of 18½ knots. They are fitted with triple-expansion engines, are coal protected, have double bottoms, and a bunker accommodation of 450 tons. Their armament consists of three 8¼ Krupps and two 6-inch Armstrongs, protected by splinter-proof shields. They carry eight 6-pounder rapid-fire Hotchkiss guns, six Gatlings, and four torpedo tubes. They have conning towers of 3-inch plates, a complete electrical outfit, and, in short, are among the best equipped vessels built in England in their day.

A pair of Chinese war vessels deserving special notice are the King Yuan and the Lai Yuan, armored ships, built by the Vulcan Works at Stettin. They are double-bottomed steel vessels, with compound armor, having a maximum thickness of 9½ inches at the water line and decreasing to about five inches below. They carry each two 8¼-inch Krupp guns in the bows, mounted *en barbette*, and surrounded by an armored breastwork and two 6-inch Krupps, while the secondary battery contains two Hotchkiss rapid-fire guns, five revolving cannon, and four torpedo tubes.

Still another pair of modern vessels are the steel cruisers Yang Woi and Tchao Yong, of 1,350 tons displacement, built at Elswick and having 2,400 horse power, the former of which reached a speed of 16.2 knots and the latter of 16.8 knots on trial. They carry a good battery of Armstrong guns. The construction of these vessels was followed by an order to the Stettin Works for two large coast defence ships.

Last year, at the Foochow arsenal, the armored coast-defence vessel Ping Yuen was completed. She is 100 feet long by 40 beam and 16 draught, and of about 2,600 tons displacement. She has triple-expansion engines of about 2,400 horse power which give her, however, only the disappointing speed of 10½ knots at the maximum. But she has a belt of 8-inch armor at the water line and a 2-inch protective deck. She carries a 10¼ Krupp gun forward protected by a 5-inch breastwork, and two 6-inch Krupps amidships, besides eight rapid-fire guns in the secondary battery and four torpedo tubes. At Foochow this year two torpedo gunboats, the Kong Hi and Kong Bui, of about 1,000 tons displacement, have been under construction.

The yard at Foochow is indeed one of the most remarkable signs of China's naval progress. Founded twelve or fourteen years ago on the Min River by a French officer in the Chinese service, it was supplied by degrees with docks, rolling mills, machine shops, and, in fact, all the appliances for naval construction and repair. During the last half dozen years it has been turning out war vessels of various sorts and sizes, although, as has been seen, the principal vessels of the Chinese navy were obtained in England and Germany. China also supplies herself with heavy guns as well as ships, and her factory at Kianguan is now building steel breech-loading rifles up to 13 inches calibre, which is as high as our own gun factories have gone. The steel for these guns is rough turned in England and sent to the factory.

It must be confessed that the Chinese navy has never distinguished itself much in action. During the war with France in 1884 one of its principal fleets was utterly destroyed by Admiral Courbet in the Min River fight. Fully a dozen vessels, ranging from 3,400 down to 300 tons, were destroyed there and at Sheifoo, the remarkable features of the French attack being the blowing up of vessels by torpedo boats and the great destruction of crews by Hotchkiss revolving cannon. But, of course, it is not supposed that China would be a match for even the smaller part of the naval force of France. Besides, the vessels then in action were her earlier ones, whereas most of the powerful ships just described, some of which secured the admiration of Count Katsu of the Japanese navy in their recent visit to Yokohama, are of late date. The personnel of the Chinese navy has also no doubt been greatly improved since 1884, under the instruction and training of Admiral Lang, a Captain of the British navy who was allowed to serve in China, and until recently was Commander-in-Chief of its navy. Other English and German officers have contributed to the improvement of China's navy, in which many of them have found employment, while the young Chinese officers have been carefully instructed in European naval schools, although China has a training institution of her own at Foochow.

At all events such a squadron as Admiral Ting's must have formed a striking contrast during the recent troubles with the squadron of Admiral Belknap. This consisted of three small vessels—the Alliance, a wooden craft of 1,375 tons and six small guns; the Palos, of 420 tons, armed only with howitzers, and the Monocacy, a worn-out paddle-wheel craft of 1,370 tons and six guns. Indeed, only the two former were in Chinese waters during the troubles, while the latter remained in her glory at Yokohama, where she formed a remarkable object in comparison with Admiral Ting's squadron cruising there. But with the Charleston now assigned to the Chinese station, our country will at last have one modern ship of good speed and efficient guns to represent her there.

Are Monarchies Tottering?

The remark is frequently heard in these days that the thrones of Europe are tottering to their fall and that the existing monarchies will soon be numbered among the things that have been. That this prediction will soon be realized there is certainly little in present appearances to indicate. Never perhaps was German Emperor more honored and respected by his subjects than the present occupant of the throne of the Hohenzollerns. King Humbert, too, has a like hold on the confidence of his people; while all the world knows how heartily every subject of her gracious Majesty sings "God save the Queen." This apparent revival of the monarchical spirit leads the New York *Tribune* to enquire whether the unusual demonstrations that have been witnessed during the last few weeks are due to an increasing hold of the monarchical system on the confidence of the people, or to the respect they entertain for the occupants of the thrones themselves considered as men. The *Tribune* concludes that it is the latter, and argues that what is seen arises not from any increased love for the thrones themselves, but merely from a recognition of the practical utility of their temporary occupants. Continuing it says:

There is no proof, for example, that German devotion to the house of Hohenzollern is deepening; but only that the people see in their young Emperor an active, energetic man of affairs, a real executive, not a mere figurehead. So with Humbert. He has shown the traditional strength and courage, both as soldier and civilian, of the house of Savoy, and has held with a tactful hand the reins of real authority over his various Cabinets. The people appreciate these personal qualities and are loyal to him personally, but probably care not a whit more for the dynasty he represents. The Emperor of Austria has retained the regard of his heterogeneous subjects by a discreet exercise of concession and a really remarkable power of discerning and taking advantage of the drift of popular sentiment. Hence Francis Joseph is a name to conjure with from the Carpathians to the Balkans among millions to whom the name of Habsburg is but a tinkling cymbal. As for England, it has long been more a democracy than a monarchy, and its people have often enough shown their readiness to dismiss an unsatisfactory sovereign and call another to the throne. The causes of popular regard for Queen Victoria are obvious enough, and they are purely personal: and the Prince of Wales retains his hold upon the public heart largely because of his untiring diligence in performing gracefully and impressively the various social functions that compose the real work of the royal figurehead."

Therefore the *Tribune* concludes that the sovereigns are strong and not the dynasties; that the monarchs of Europe are at present on their good behavior, and that they are mere creatures of the "parliament of man" which the moment their conduct provokes a vote of want of confidence will determine that out they must go.

Building in Toronto.

Though it must have been patent to every person who has moved about the city to any considerable extent that Toronto's building operations this year are on an unusual scale, it is not unlikely that very few fully realized how great they really are, or how greatly they exceed those of last year. According to the City Hall record the value of buildings for which permits were taken out during the last eight months is nearly three times as great as that for the corresponding period of last year. Following are the figures for the first eight months of 1891 and 1890:

	1891.	1890.
January	$226,950	$ 50,500
February	144,600	105,450
March	236,440	172,625
April	769,680	167,000
May	692,600	212,625
June	446,275	161,225
July	500,060	138,925
August	273,400	145,075
	$3,290,005	$1,157,225

It is evident that Toronto property owners have faith in the future of their city. No better test can be found of a man's confidence in the future prosperity of a community than his willingness to invest money in real estate.

Lord Save Me.

"Say to Him, in the prayer of the skeptic, "If it be Thou, Lord, command me to come to Thee. If this illumination of the intellect and this touching of the heart be from my God, and would give me an answer to the riddle of my life, command me to come to Thee." And if in walking upon the waters, you still sink in doubt, cry out to Him, "Lord save me," and He will stretch out His hand as He did to doubting Peter, and you will be enabled to walk upon the troubled water by His side, and He will lead you to the bark—the bark of Peter. And as when they of old entered the bark the wind ceased, so shall the storm of doubt and difficulty cease in the depths of your soul. And, falling at the feet of Christ, your skepticism will disappear, you will cry in the vehemence of your faith, hope, love and gratitude to God; "Indeed thou art the Son of the living God." Here is peace. Here is certainity. Here is the answer to the questions of my soul—the answer to the cry of my heart," My Lord and My God!"—*Archbishop Ryan.*

In Profusion.

The least exertion on a hot day provokes perspiration, and labor produces it in profusion. It is then when the skin is moist and the pores open, that treatment of old chronic rheumatic and neuralgic aches and pains may be the most successful. St. Jacobs Oil will penetrate to the bone. It will find the seat of the trouble, stimulate the muscles to healthful action and will soothe the disordered nerves.

CATARRH

Is a constitutional and not a local disease, and therefore it cannot be cured by local applications. It requires a constitutional remedy like Hood's Sarsaparilla, which, working through the blood, effects a permanent cure of catarrh by eradicating the impurity which causes and promotes the disease. Thousands of people testify to the success of Hood's Sarsaparilla as a remedy for catarrh when other preparations had failed. Hood's Sarsaparilla also builds up the whole system, and makes you feel renewed in health.

Hood's Sarsaparilla

Sold by all druggists. $1; six for $5. Prepared only by C. I. HOOD & CO., Apothecaries, Lowell, Mass.

100 Doses One Dollar

A Wonderful Relic.

Treves is by no means alone in the possession of a relic of the founder of Christianity. Bruges, the capital of West Flanders, Belguim, contains one more precious still, namely, a few drops of His blood, supposed by some to have been collected beneath the cross and by others to have been collected by Joseph of Arimathea. The relic was brought from Jerusalem to Bruges by Thierry d'Alsace, a Crusader. It is kept in a chapel specially consecrated to it. Every year it is carried in solemn procession through the streets of the city, on which occasion Bruges is visited by crowds of devotees from all parts of Belgium and a general holiday is observed.

A Moderate Want.

I would not be my lady's glove,
Thus lightly to be cast aside,
Her bonnet or her gown, for love
Like mine would nearer her abide.
And yet I would not closer press
So closely that she must demur,
But, oh, I'd be her bathing dress
And cling
And cling
And cling
To her.

"German Syrup"

For Coughs & Colds.

John F. Jones, Edom, Tex., writes: I have used German Syrup for the past six years, for Sore Throat, Cough, Colds, Pains in the Chest and Lungs, and let me say to anyone wanting such a medicine—German Syrup is the best.

B. W. Baldwin, Carnesville, Tenn., writes: I have used your German Syrup in my family, and find it the best medicine I ever tried for coughs and colds. I recommend it to everyone for these troubles.

R. Schmalhausen, Druggist, of Charleston, Ill., writes: After trying scores of prescriptions and preparations I had on my files and shelves, without relief for a very severe cold, which had settled on my lungs, I tried your German Syrup. It gave me immediate relief and a permanent cure.

G. G. GREEN, Sole Manufacturer,
Woodbury, New Jersey, U. S. A.

The physical wonder in Southern California, by which a lake was suddenly called into being few weeks ago, is by many regarded as come to stay. Though not deep—the water in many places being only a few feet in depth—the lake is now sixty miles long by thirty miles wide. Already its presence appears to have seriously affected the climate of that portion of the State, unusually heavy rains having recently fallen in the mountain and hill districts where no moisture was ever known before at this season of the year. Should the expectation of the experts who pronounce in favor of its continuance, be realized, the Biblical saying of making "the desert blossom as the rose," may for that country cease to be a mere figure of speech.

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CURES PERMANENTLY

Rheumatism
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IT HAS NO EQUAL.
IT IS THE BEST.